REMARKS

The above amendments to the above-captioned application along with the following remarks are being submitted as a full and complete response to the Official Action dated April 7, 2006. In view of the following remarks, the Examiner is respectfully requested to give due reconsideration to this application, to indicate the allowability of the claims, and to pass this case to issue.

Status of the Claims

Claims 10-22 are under consideration in this application. Claims 10 and 20-22 are being amended, as set forth in the above marked-up presentation of the claim amendments, in order to more particularly define and distinctly claim Applicants' invention.

The claims are being amended to correct formal errors and/or to better disclose or describe the features of the present invention as claimed. All the amendments to the specification and the claims are supported by the specification, especially the drawings. Applicants hereby submit that no new matter is being introduced into the application through the submission of this response.

Formality Rejection

Claims 10-22 were rejected under 35 U.S.C. § 112, first paragraph, on the ground that the recitation of "determining whether a format of the hardcopy document is available in a database" fails to comply with the written description requirement, and that the specification does not support how to use the invention. Claims 10-22 were further rejected under 35 U.S.C. § 101 and § 112, first paragraph, for lacking utility.

Applicants respectfully contend that the recitation of "determining whether a format of the hardcopy document is available in a database" is fully described in the specification, for example, on page 12, last paragraph, where "*It is decided whether the document form/format has been successfully identified. If the document form has been successfully identified, the pertinent document processing information is extracted from the document according to a document processing information dictionary. The document processing information dictionary to be used in extracting the document processing information may be either kept within the document processing system or kept by another*

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system in the network to which the document processing system is linked and referenced via the network (steps 508 and 509)."

The independent claims now recite a useful, concrete step "thereby executing another hardcopy document handling procedure on the hardcopy document (such as *"reading of entered items"*, *"posting an acknowledging seal"* and *"cutting the document"* p. 13, lines 7-10; 4th clause of the originally filed claim 10) to go beyond merely manipulating data and describe what will happen in the physical world after a format is determined to be in the database so as to provide utility.

As indicated, the claims are being amended as required by the Examiner. Accordingly, the withdrawal of the outstanding informality rejection is in order, and is therefore respectfully solicited.

Prior Art Rejections

Claims 10-22 were rejected under 35 U.S.C. § 103(a) as being unpatentable over US Pub. No. 2002/0150311 of Lynn (hereinafter "Lynn") in view of US Pat. No. 6,604,108 to Nitahara (hereinafter "Nitahara"). This rejection has been carefully considered, but is most respectfully traversed.

The document processing system of the invention, as now recited in claim 10, comprises: an input unit for reading a storing means (e.g., text, an one-dimensional, 2D or 3D bar code, a magnetic tape, an IC chip; and an encoded print into a logo mark, photograph or some other graphic item, such as a watermark, photograph, holographic, p. 9, lines 1-9) on a *hardcopy document* (e.g., a bill or a commercial paper, p. 8, lines 1-2; p. 10, line 18; Figs. 2 & 9); document processing information, which includes <u>information of hardcopy document handling procedures</u> to be executed in connection with the hardcopy document, extracting unit for extracting encoded (*"encoded document processing information is read and decoded to obtain the document processing information"* p. 12, lines 14-15) document processing information stored in the storing means; and document processor for executing document processing said at least one document handling procedure. The hardcopy document handling procedures (Fig. 10; pp. 16-17) include identifying a document and <u>identifying a hardcopy document "format" by determining whether a format of the hardcopy document</u> (i.e., *"the layout information: rule mark positions, frame position, frame attributes (box for sum, box for date, etc.), and character types in frame (numerals, Chinese characters, Japanese phonetic letters, etc.)"* p. 2, lines 2-7) <u>is available in a database</u> (*"If the document form has been successfully*

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identified, the pertinent document processing information is extracted from the document according to a document processing information dictionary. ... If the decision at step 508 reveals a failure in identifying the document form, the document form of the entered document will be unknown such that it is impossible to continue the document processing." P. 12, line 20 to p. 13, line 5) thereby executing another hardcopy document handling procedure on the hardcopy document (such as "*reading of entered items*", "*posting an acknowledging seal*" and "*cutting the document*" p. 13, lines 7-10; 4th clause of the originally filed claim 10).

The document processing information "*on document forms or formats* (p. 3, line 15)" including "*the document form, the processing procedure, the processing method and the format of the document 201 are encoded into the two-dimensional bar code 202 and stated in a prescribed position, such as a corner of the document. In particular, the document handling procedure may be a document cutting step in conjunction with a document cutting position, a seal stamping step in conjunction with a seal stamping position, a document identification step in conjunction with a document ID, a document format identification step in conjunction with a document format ID, an encryption step in conjunction with a encryption key, or a decryption step in conjunction with a decryption key* (p. 8, last paragraph)." Examples of the "hardcopy document handling procedure" includes "identifying document" and "identifying document format", as stated in the claims, and "reading of entered items", "posting an acknowledging seal" and "cutting the document" (p. 13 lines 7-10). In other words, "hardcopy document handling procedure" is an executable action (see 4th clause of claim 10).

The invention is also directed to a document generating software product, as now recited in claim 20, comprising: a communication module for enabling a prospective document user wishing to have a hardcopy document made to notify a document generator of requirements regarding a desired hardcopy document layout and a desired hardcopy document handling procedure; a document layout making module for making a document layout according to the requirements from said prospective document user; a document candidate presenting module for presenting to the prospective document user document candidates made by the document layout making module; a document selecting module for letting the prospective document user select a document candidate out of the document candidates presented by the document candidate presenting module; a document processing information determining module for determining document processing information including information of the desired hardcopy document handling

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procedure; a storing means module for selecting a storing means, encoding the document processing information, and for storing the encoded document processing information in the storing means; and a document processor for printing on or embedding the storing means on the hardcopy document, and for executing the desired hardcopy document handling procedure in connection with the hardcopy document. The hardcopy document handling procedures include identifying a document and identifying a hardcopy document "format" by determining whether a format of the hardcopy document is available in a database thereby executing another hardcopy document handling procedure on the hardcopy document.

The invention is also directed to a software product for providing a hardcopy document, as recited in claim 21, comprising a module for printing on or embedding in the hardcopy document a storing means, wherein said storing means stores encoded document processing information, which includes information of hardcopy document handling procedures to be executed in connection with the hardcopy document, and the hardcopy document is subject to and readable by a document processing apparatus for executing said at least one hardcopy document handling procedure in connection with the hardcopy document. The hardcopy document handling procedures include identifying document and identifying a hardcopy document "format" by determining whether a format of the hardcopy document is available in a database thereby executing another hardcopy document handling procedure on the hardcopy document.

The invention, as recited in claim 22, is also directed to a hardcopy document having a storing means printed thereon or embedded therein that include encoded document processing information, which includes information of hardcopy document handling procedures to be executed in connection with the hardcopy document, and the hardcopy document is readable by a document processing apparatus for executing said at least one hardcopy document handling procedure in connection with the hardcopy document. The hardcopy document handling procedures include identifying a document and identifying a hardcopy document "format" by determining whether a format of the hardcopy document is available in a database thereby executing another hardcopy document handling procedure on the hardcopy document.

An object of the claimed invention is to equip a hardcopy document with a storing means in order to facilitate the handling procedure of the hardcopy document. The handling procedure includes at least identifying the document format, i.e., layout, by determining whether a format of the hardcopy document is available in a database. As the

document format information and processing information stored in the storing manes to be transmitted with the hardcopy document (p. 3, line 11-13), just by reading the storing means, the system will know what format the document has, and therefore how to process it without accessing the image storage mechanism 130 via a communication link 120 (e.g., internet, intranet, wired or wireless).

Again, Applicants respectfully reiterate the following four points mentioned in the previously response which were not commented on by the Examiner in this outstanding Office Action.

First, Lynn fails to teach or suggest that such an "extracting unit for extracting encoded document processing information which is stored in the storing means and which includes at least one hardcopy document handling procedure to be executed in connection with the hardcopy document"; and such a "document processor for executing document processing said at least one document handling procedure including identifying document and identifying a hardcopy document *format* by determining whether a format of the hardcopy document is available in a database (such a format including only a pre-determined format/form with blanks to be filled (p. 11, lines 4-5), but not any variable text to be filled thereon) as the invention.

Secondly, Lynn only extracts from the bar code or machine readable portion 304 of the label (1) a globally unique identifier and (2) additional information (e.g., "*information on physical location of the paper-based document, document disposition details, or additional index data for the document* ([0047]") to be used when storing the digital image of the paper-based document. None of the "additional information" includes identifying a hardcopy document "format" by determining whether a format of the hardcopy document is available in a database as according to the invention.

Thirdly, Lynn stores the basic information about how a given paper-based document is to be processed into the "eye-legible information portion 302 [0046]", rather than into the "computer readable portion 304". This is the opposite of automating the process of determining what to perform on the hardcopy document, as the claimed invention. In particular, the computer readable bar code portion 304 of the identifier is provided for identifying document "images ([0046])" by a computer or the like, and the eye-legible information portion 302 (e.g., "KwikTag abc123/008/00367" in Fig. 3) of the identifier "*is provided as a convenience for the user and provides basic information about a paper-based document or about how a give paper-based document is to be processed*" as perceived by a human user ([0046]), but not any machine or processor.

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Fourth, regarding the Examiner's assertion (p. 6, last paragraph of the previous Office Action) that Lynn identifies a "document format" by using an electronic document image format such as PDF or TIFF, Applicant respectfully contends that Lynn only *stores* (rather than "identify") document digital "images" in the image repository 226 to a main memory 220 or a cache memory in PDF or TIFF **electronic "image" format** ([0045]) (rather than a "hardcopy document format/layout") to provide access to "*the electronic images of paper-based documents* ([0029])", after a paper-based document is scanned, or an electronic document is received electronically ([0031]). Lynn does not **identify** any **hardcopy document format/layout by determining whether a format of the hardcopy document is available in a database**.

At most, Lynn identifies an "image" ID of the document to treat a document digital *image* "as a whole", i.e., (including BOTH a pre-determined format/form with blanks to be filled and any variable text to be filled thereon), so as to retrieve the document "image" later, without identifying any format or layout of the document shown in the image. For example, Lynn scans/stores each receipt with a signature in the image repository 226 even if some of them share the same hardcopy format ([0031]). Lynn's globally unique identifier and any other descriptive information are used to identify the "image" of each receipt, rather than a "format or layout information" of the document. In other words, Lynn only encodes document "images," rather than any hardcopy document "format or layout information" to be digitally/electronically interpretable/identified by the document processor as the invention.

In this Office Action, as admitted by the Examiner (p. 4, lines 7-8 of the outstanding Office Action), Lynn "*fails to teach an invention of determining whether a format of the hardcopy document is available in a database.*" Nitahara was cited to provide such a teaching.

Nitahara's "*information mart content files are produced from data that resides in the various disparate **electronic** data storage facilities associated with the enterprise. A content file may be an existing file from the enterprise's data storage facilities (e.g. an **html [electronic] document,** a data table, a graphic, etc.) or it may be the result of processing of source data from a single source file (e.g. a graphic generated from a database record, a portion of an [electronic] document, etc.), or it may be the result of processing of source data from multiple source files (e.g. a graphic generated using multiple database records from different databases). (col. 2, lines 34-45)*". The only instance Nitahara mentioned a hardcopy document was in col. 6, line 47-48. Nitahara

uses the source file (in one or more databases) of *"a scanned version of a hard copy document"* as the content file without further processing to make it available on the web through the information mar, by mapping the physical address the source file to the content file identifier in the logical index. However, Nitahara's scanned version is merely an <u>exact copy</u> of a hardcopy document, rather than any <u>physical format</u> (e.g., layout) of a hard copy document as the present invention. As such, Nitahara does NOT "determine whether a <u>format</u> of the hardcopy document is available in a database" as alleged by the Examiner (p. 4, lines 8-10 of the outstanding Office Action).

Besides, Nitahara shares the same deficiencies as Lynn as failing to disclose any "<u>information of document handling procedure</u> embedded on the document".

The alleged *"obviousness"* to combine Lynn and Nitahara is questionable in the absence of any concrete evidence in the record to support the analogy as known in the art, and it should be considered only based upon concrete evidence in the record.

"It is never appropriate to rely solely on "common knowledge" in the art without evidentiary support in the record, as the principal evidence upon which a rejection was based. Zurko, 258 F.3d at 1385, 59 USPQ2d at 1697 ("[T]he Board cannot simply reach conclusions based on its own understanding or experience-or on its assessment of what would be basic knowledge or common sense. Rather, the Board must point to some concrete evidence in the record in support of these findings."). While the court explained that, "as an administrative tribunal the Board clearly has expertise in the subject matter over which it exercises jurisdiction," it made clear that such "expertise may provide sufficient support for conclusions [only] as to peripheral issues." Id. at 1385-86, 59 USPQ2d at 1697. As the court held in Zurko, an assessment of basic knowledge and common sense that is not based on any evidence in the record lacks substantial evidence support. Id. at 1385, 59 USPQ2d at 1697. See also In re Lee, 277 F.3d 1338, 1344-45, 61 USPQ2d 1430, 1434-35 (Fed. Cir. 2002) (In reversing the Board's decision, the court stated " 'common knowledge and common sense' on which the Board relied in rejecting Lee's application are not the specialized knowledge and expertise contemplated by the Administrative Procedure Act. Conclusory statements such as those here provided do not fulfill the agency's obligation.. The board cannot rely on conclusory statements when dealing with particular combinations of prior art and specific claims, but must set forth the rationale on which it relies.")." As such, the Examiner must provide "some concrete evidence in the record in support of" factual assertion to rely solely on "common knowledge" in the art as the principal evidence.

Lastly, JP 2000-251012 to Morita at al. (hereinafter "Morita") listed in the concurrently filed IDS is distinguished from the invention in that shares the same deficiencies as Lynn as failing to disclose any <u>information of document handling procedure</u> embedded on the document.

Applicant contends that Lynn, Morita, Nitahara do not teach or disclose each and every feature of the present invention as disclosed in at least independent claims 10 and 20-22. As such, the present invention as now claimed is distinguishable and thereby allowable over the rejections raised in the Office Action. The withdrawal of the outstanding prior art rejections is in order, and is respectfully solicited.

<u>Conclusion</u>

In view of all the above, clear and distinct differences as discussed exist between the present invention as now claimed and the prior art references upon which the rejections in the Office Action rely, Applicants respectfully contend that the prior art references cannot anticipate the present invention or render the present invention obvious. Rather, the present invention as a whole is distinguishable, and thereby allowable over the prior art.

Favorable reconsideration of this application is respectfully solicited. Should there be any outstanding issues requiring discussion that would further the prosecution and allowance of the above-captioned application, the Examiner is invited to contact the Applicants' undersigned representative at the address and telephone number indicated below.

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